

(Initials/Date)

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is qualified data on this name.

Meter ID: B0 #2

RQ: 2017-10-09-16

Project: Smp

Notes: (1) Always wait for meter to stabilize before recording any readings.

(2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).

(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	10/9/17	1541	22.87	8.598	8.60	100.0	52	~	P/F	L/F
ICV	Curtis Musson	10/9/17	1543	22.89	8.525	8.60	100.0	52	~	P/F	L/F
CCV	Curtis Musson	10/10/17	1541	24.37	8.356	8.59	104.7	53	~	P/F	L/F
CCV										P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	10/9/17	1545	170614 E	6/2018	1000	1000	P/F	L/F
ICV	Curtis Musson	10/9/17	1546	170614 E	6/2018	1000	1000	P/F	L/F
CCV	Curtis Musson	10/10/17	1543	170614 D	6/2018	100	105	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	10/9/17	1547	170310 B	9/18	7.0	7.00	44	P/F	L/F
Calibr.	Curtis Musson	10/9/17	1551	170614 A	6/18	4.01	4.01	215	P/F	L/F
Calibr.	Curtis Musson	10/9/17	1552	170310 C	9/18	10.01	9.94	-107	P/F	L/F
ICV	Curtis Musson	10/9/17	1554	170614 A	6/18	4.01	3.82	222	P/F	L/F
CCV	Curtis Musson	10/10/17	1544	170310 C	9/18	10.01	10.06	-109	P/F	L/F
CCV									P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth verification

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air						P / F	L / F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

Request Number: 20-2017-10-09-23

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Central Lab Sample Submittal Form

Page 2 of 5

Swamp, Salem, Talavanna, Arrowhead, AJ, Harbinwood Requester: Curtis Musson

Customer: WAS-SECT

Project ID: SMP

Field Report Prepared By: CUS MUSSON

Sampling Agency: FDEP

Collected By: Curtis Musson, Ben Ralys

Locat	Swamp Creek upstream of Railroad	STORET ↓ G1WA0052_10102017	Collection (comp begin or grab) Date 10/10/17 Time 1040	Matrix ☒ Grab ☐ Fresh	Diss. Oxygen (mg/L) 6.75	pH 6.90	Sample Depts (m) 0.3	Sp. Conductance (umho/cm) 79	Bottle Group(s) A,C D,E
ST	Field ID → Swamp Creek upstream of Railroad	Oct 10, 2017							
Loc	Salem Branch downstream of SR 159	STORET ↓ G1WA0053_10102017	Collection (comp begin or grab) Date 10/10/17 Time 1015	Matrix ☒ Grab ☐ Fresh	Diss. Oxygen (mg/L) 6.32	pH 7.51	Sample Depts (m) 0.3	Sp. Conductance (umho/cm) 177	Bottle Group(s) C,D, F
FI	Field ID → Salem Branch downstream of SR 159	Oct 10, 2017							
Loc	Harbinwood Estates Drain	STORET ↓ G1WA0034_10102017	Collection (comp begin or grab) Date 10/10/17 Time 1130	Matrix ☒ Grab ☐ Fresh	Diss. Oxygen (mg/L) 3.66	pH 7.28	Sample Depts (m) 0.1	Sp. Conductance (umho/cm) 127	Bottle Group(s) A,B,C,D E
Fi	Field ID → Harbinwood Estates Drain	Oct 10, 2017							

Relinquished By: Curtis Musson

Date/Time 1-10/17

Number of Coolers 5

Received By: A.2

Date/Time 11/10/17 2:08

Request Number: 19-2017-10-09-23		FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION		Page 3 of 5	
Swamp, Salem, Talavanna, Arrowhead, AJ, Harbinwoo Requester: Curtis Musson		Central Lab Sample Submittal Form		Field Report Prepared By: Curtis Musson	
Customer: WAS-SECT		Project ID: SMP		Sampling Agency: FDEP	
Collected By: Curtis Musson, Ben Ralys		Collection (comp begin or grab)		Bottle Group(s)	
Loc		Date 10/10/17 Time 1225		Time	
File		Matrix (Fresh) FRESH		Diss. Oxygen (mg/L) 4.27	
STO		Temp (C) 25.89		pH 6.81	
		Salinity (ppt) 0.10		Sample Depts (m) 0.2	
		Comments		Sp. Conductance (umho/cm) 209	
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		Bottle Group(s) A,C,D G	
Loc		Collection (comp begin or grab)		Time	
File		Matrix (Fresh) Fresh		Diss. Oxygen (mg/L) 3.84	
STC		Temp (C) 26.67		pH 7.02	
		Salinity (ppt) 0.09		Sample Depts (m) 0.3	
		Comments		Sp. Conductance (umho/cm) 198	
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		Bottle Group(s) A,C D,E	
Loc		Collection (comp begin or grab)		Time	
File		Matrix (Fresh) Fresh		Diss. Oxygen (mg/L) 8.04	
STC		Temp (C) 28.16		pH 7.71	
		Salinity (ppt) 0.10		Sample Depts (m) 0.3	
		Comments		Sp. Conductance (umho/cm) 224	
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		Bottle Group(s) A,B,C G,H	
Relinquished By: Curtis Musson		Date/Time 10/10/17 1355		Number of Coolers 5	
Received By: J.D.		Date/Time 10/10/17 2:08			

Group: A	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	P-1L	# of Bottles: 8	Preservative:	ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 8	Preservative:	ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 8	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 8	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	8
Group: B	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 1 2 Added	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	3
Group: C	Bottle Type: ECOLI-18QT	P-250ML-WO-THI	# of Bottles: 7	Preservative:	ICE	Enter Number of Bottles Sent to Lab	7
Group: D	Bottle Type: W-AHERB-AA W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 5	Preservative:	ICE	Enter Number of Bottles Sent to Lab	5
Group: E	Bottle Type: PCR-FILTER PCR-HF183	QPCR-P-250ML	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: F	Bottle Type: PCR-FILTER	QPCR-P-250ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2

Group: F	Bottle Type: QPCR-P-250ML	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	2
PCR-GFD					
Group: G	Bottle Type: QPCR-P-250ML	# of Bottles: 6	Preservative: ICE	Enter Number of Bottles Sent to Lab	6
PCR-FILTER					
Group: H	Bottle Type: BG-1L	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab	4
W-AHERB-AA					
W-GLYPH					
W-PYR-AA-R					
W-SUC-AA-R					
W-UHERB-AA					
Group: H	Bottle Type: BG-500ML	# of Bottles: 6	Preservative: ICE	Enter Number of Bottles Sent to Lab	6
W-CT-CI-R					
W-PCL-SQ-R					
Group: H	Bottle Type: BG-1L	# of Bottles: 6	Preservative: ICE	Enter Number of Bottles Sent to Lab	6
W-PSNP-TQ					

Cooler Packing Worksheet for Request: RQ-2017-10-09-23
SWamp, Salem, Talavanna, Arrowhead, AJ, Harbinwood, Meginnis, Godby, Central

Ship Cooler On: 10/3/2017
Customer/Project: WAS-SECT/SMP

Assigned To: SEARSON_C
Requester: Curtis Musson
Priority: 3

850-245-8453
2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Nutrients, CHLA, Physical Aggregates
Group B: Metals
Group C: Microbiology (Bacteria)
Group D: Organics (Wastewater Tracers) AHERB Short List
Group E: PCR (HF183, FILTER)
Group F: PCR (GFD, FILTER)
Group G: PCR (FILTER)
Group H: Pesticides AHERB Long List

Requested Analyses:

Bottle Group: A

of Sites: 8

Container ID: P-1L

Qty: 8 Preservation: ICE

Lot # 00068657

Description: Plastic Bottle 1L

Analysis

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
W-SO4-IC
W-TDS
W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO3/L
Turbidity in aqueous matrices
Chloride in aqueous matrices
True Color measured at 450 nm
Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Sulfate in aqueous matrices
Total Dissolved Solids in aqueous matrices
Total Suspended Solids in aqueous matrices

Container ID: BP-1L

Qty: 8 Preservation: ICE

Lot # 1208913

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: BG-1L

Qty: 5 Preservation: ICE

Lot # 00068050

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-AHERB-AA

W-SUC-AA-R

W-UHERB-AA

Description

Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS

Analysis of sucralose in water matrices by HPLC/MS/MS

Urea herbicides and other chemicals in water matrices by HPLC/MS/MS

Bottle Group: E

of Sites: 2

Container ID: QPCR-P-250ML

Qty: 4 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

PCR-HF183

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

Bottle Group: F

of Sites: 1

Container ID: QPCR-P-250ML

Qty: 2 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

PCR-GFD

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction

Bottle Group: G

of Sites: 3

Container ID: QPCR-P-250ML

Qty: 6 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Bottle Group: H

of Sites: 2